

Calendar No. 406

89TH CONGRESS }
1st Session

SENATE

} REPORT
No. 421

STATE TECHNICAL SERVICES ACT OF 1965

JULY 1, 1965.—Ordered to be printed
Reported, under authority of the order of the Senate of July 1, 1965

Mr. MAGNUSON, from the Committee on Commerce, submitted the following

REPORT

[To accompany S. 949]

The Committee on Commerce, to whom was referred the bill (S. 949) to promote economic growth by supporting State and regional centers to place the findings of science usefully in the hands of American enterprise, having considered the same, report favorably thereon with amendments and recommend that the bill as amended do pass.

PURPOSE OF THE LEGISLATION

S. 949 would authorize a 5-year program of matching grants to the States in a cooperative effort to promote the wider diffusion and more effective application of the findings of science and technology throughout American commerce and industry. The technical services program would draw upon the resources of universities, nonprofit research organizations and State and local agencies, in locally planned and administered technical services designed to place these findings usefully in the hands of local businesses and enterprises.

NEED FOR THE TECHNICAL SERVICES PROGRAM

A close examination of the modern American economy reveals a number of recurring themes—all of them related in some degree to the importance of having effective mechanisms for introducing the results of science and technology into commercial use; for example, the competition we face in both domestic and world markets is increasingly based on a high level of technology, not solely on lower labor costs.

The most successful competitors, whether at an international level, industrywide, or among individual companies, are those who have learned to use new technology effectively.

The cost of new technology, in the form of technical manpower and equipment, has been rapidly rising.

Opportunities to participate in benefits of technology have not been equally available in the various regions of the United States.

Substantial expenditures for specialized research and development in support of national defense and space missions have not met the full range of industrial needs for technology.

The vast increase in the Nation's total research and development effort have not eradicated long-term unemployment and economic decline in many parts of the country.

Technology cannot be effectively diffused merely by giving information to a potential user. There must be means for active interchange between those using and those furnishing information.

There are many factors involved in complete solutions to the broad problems outlined above. Common to all of them, however, is the need for institutions and mechanisms at the local level, specifically designed to bridge the gap between the most advanced technology, wherever it exists, and the industrial practices of the local region.

Through the technical services program and with the cooperation of universities, communities, and industries, three objectives will be served: (1) strengthening the Nation's economy by upgrading industries through the utilization of advanced technology, thereby generally expanding the industrial base; (2) increasing employment by facilitating industrial use of technology and the manufacturing of new products which result; and (3) enhancing the competitive position of U.S. products in world markets.

DESCRIPTION OF THE TECHNICAL SERVICES PROGRAM

A State wishing to participate in the program would designate an agency (generally a State university or land-grant college) to administer and coordinate the State's technical services program.

The designated agency would prepare a 5-year plan, outlining the technological and economic situation in the State, the major regional and industrial problems, and the means to be used in assisting in their solution.

The designated agency would also prepare an annual technical services program, covering the objectives for the first year, the budget, and the responsibilities assigned to each qualified institution participating in the program. Up to \$25,000 per year for each of the first 3 years may be paid to the designated agency to assist in preparing the first 5-year plan and the initial annual programs.

An advisory council would be established by the designated agency to evaluate and report on the 5-year plan and the annual technical service program.

The 5-year plan and the annual program would be submitted to the Secretary of Commerce. Federal matching funds would be made available to the designated agency to support those programs found by the Secretary to meet legal requirements and to further the purposes of the act. The maximum annual payment in support of any State program will be limited by a formula to be established by the Secretary, taking into consideration three criteria: (1) Population according to the last census, (2) industrial and economic development

and productive efficiency, and (3) technical resources. Supplementary matching grants, totaling up to 20 percent of the amount appropriated each year, may also be made to support programs which the Secretary determines have special merit. These provisions are designed to assure that the program's benefits will be widely diffused throughout the Nation while at the same time reserving sufficient discretion to the Secretary to assure that funds are granted only in support of adequately developed programs which will in fact advance the purposes of the act.

The formula to be established by the Secretary will be based on objective considerations such as the proportion of working population gainfully employed, the ratio of assets of individual establishments to employees, urban population, industrial population, the numbers of scientists and engineers, and the physical research facilities used for industrial purposes. The formula will be weighted to provide funds to States and regions where industrial development has lagged behind its potential and where technical resources are weak. The population criteria will be applied in a manner which will permit even the smallest States to participate in a meaningful program.

Secretary of Commerce Connor informed the committee that he estimates that the authorization to the States "will be in the range of \$150,000 for the least populous to not more than \$2 million for the most populous States."

New plans are required at 5-year intervals, although they are to be revised if necessary. Annual technical services programs must be submitted to the Secretary of Commerce each year in order to qualify for annual matching funds. In administering the program and approving plans, the Secretary would consult with other agencies of the Federal Government as appropriate. An annual report from each designated agency is required at the conclusion of each year.

Once in operation, there is a wide variety of technical services which might be offered by the various institutions participating in the program within a particular State. For example, a technology diffusion program oriented to the needs and problems of a specific industry dominant in one State or region might offer workshops, seminars, and demonstrations in order to bring existing technology to local entrepreneurs for use in plants within the region. A technology dissemination and referral center could offer two types of services: (1) Technical reports, abstracts, bibliographies, reviews, microfilm, computer tapes, and the like; and (2) referral to sources of scientific and engineering expertise in the fields of interest to the local industry. Such a center would be in continuous interaction with local business and industry, so that its services will be pertinent to the local economy. These examples by no means exhaust the list of possible technical services that might be offered in any State program. The range of services can be as wide as the range of industrial and technological interests in this country, and, within the bounds of the act, is only limited by the imagination and initiative of the persons who develop the State program.

The proposed legislation would not support scientific research or industrial research, nor would it be concerned with developing proprietary products or processes.

S. 949, as amended, would also prohibit the funding of any service "that is now available or could be made available as practicably by private technical services, professional consultants or private institu-

tions." While the bill would authorize technical services to public facilities such as docks, airports, or power or water systems, it would do so only to the extent that such services are of general concern to the industry and commerce of the community, State or region, and it is not anticipated that such activities will become dominant in the State programs.

COMMITTEE CONSIDERATION

The committee held 3 days of hearings on S. 949 and S. 2083, introduced by Senator Scott which, while basically in agreement with the objectives of S. 949, contained certain alternative provisions.

At the committee hearings, the technical services program received the unanimous endorsement of both public and private witnesses, including representatives of State governments, State universities, land-grant colleges, professional engineers, and profit and nonprofit research organizations. The National Association of Manufacturers subsequently submitted a statement in opposition and the U.S. Chamber of Commerce, in partial opposition.

The following members of the Commerce Committee joined as cosponsors of S. 949, as amended by the committee: Senators Magnuson, Pastore, Monroney, Lausche, Bartlett, Hartke, McGee, Hart, Cannon, Brewster, Neuberger, Bass, Cotton, Scott, Prouty, Pearson, and Dominick.

AMENDMENTS

In addition to several technical amendments, the committee adopted 5 substantive amendments as follows:

(1) Placing a 5-year limit on the program with authorization ceilings of \$10 million the first year; \$20 million, the second; \$30 million, the third; and \$40 million for the fourth and fifth years;

(2) specifying that no technical service program could provide a service "that is now available or could be made available as practicably by private technical services, professional consultants or private institutions";

(3) providing that no services can be planned for "a particular firm or company, public work, or other capital project except insofar as the services are of general concern to the industry and commerce of the community, State or region";

(4) deleting the requirement that if the Governor selects a State institution or agency other than a State university or land-grant college, as the designated agency, the Secretary of Commerce must be furnished a written statement of the reasons for designating such other institution or agency. The committee considered that each Governor should have the maximum freedom to select the appropriate administering agency in developing his State program; and

(5) requiring that the Secretary of Commerce make a complete report on the administration of the act to the President and Congress not later than January 30 of each year.

COST OF THE PROGRAM

The cost to the Federal Government of the proposed program will be not in excess of \$10 million for the first year, \$20 million, the second, \$30 million, the third, and \$40 million the fourth and fifth years.

All funds made available to States for technical services, except regional incentives, would be matched at least equally by non-Federal funds. Direct Federal expenditures would be limited to expenditures for administration, to be held to less than 5 percent of the cost of the program, and for reference services to aid the States and regions in collecting and processing technical information for dissemination to industry under the act.

AGENCY COMMENTS

The letter of transmittal from Secretary of Commerce Hodges and the agency comments follow:

LETTER OF TRANSMITTAL FROM THE SECRETARY OF COMMERCE

THE SECRETARY OF COMMERCE,
Washington, D.C., January 15, 1965.

PRESIDENT PRO TEMPORE OF THE SENATE,
U.S. Senate, Washington, D.C.

DEAR MR. PRESIDENT: The President's Economic Report of last year stated:

"The Federal Government should join with private business and our universities in speeding the development and spread of new technology. I have directed the Department of Commerce to explore new ways to accomplish this."

During the past year the Commerce Department in accordance with the President's directive, has completed an intensive study of the relationship between technology and national economic growth. We have had discussions with scientists, industrialists, economists, engineers, educators, and officials of State and local governments, as well as with representatives of other departments and agencies of the Federal Government.

As a nation, we have not been giving sufficient emphasis to effective industrial use of the results of science and technology, particularly in our civilian economy, at a time when military expenditures are leveling off. We have vast and increasing resources of technology in the United States. Yet, too frequently, the knowledge which science and engineering produces is not being applied on the production line and in the plants by those companies and industries that need it most.

As a result I now submit to the Congress a proposal to establish a cooperative program between the States and the Federal Government to place the findings of science and technology in the hands of American business and enterprise. Its purpose is to speed industrial and economic growth through scientific knowledge. To accomplish this purpose, there is attached a draft bill called the State Technical Services Act of 1965, with a statement of purpose and need.

Under the proposed legislation the Federal Government would join with universities, State and local governments and industry in supporting programs to make science and engineering information more readily available to industry. The bill would establish procedures under which State plans and programs would be formulated and put into effect with local initiative and responsibility. To qualify for Federal grants, the States would designate institutions responsible for administering and coordinating programs within the States. Regional centers could be established where two or more States wish to

join in a cooperative program. Each designated State institution or regional center would submit plans and programs which, after approval by the Secretary, would receive Federal funds under regulations which would be published.

The cost to the Federal Government for this proposed program would be between \$5 and \$10 million for the first year, and the cost when the program is fully operative would be modest. The Federal expenditures combined with State and other local funds would, in my opinion, return benefits to the country manifold.

The proposed legislation would not only help to increase the strength of those areas which are now economically weak but would stimulate an increase in technical manpower and add to our economic strength by raising the level of technology in industry throughout the country.

Our efforts to improve education and to combat widespread unemployment and poverty critically emphasize the need for a healthy industrial economy. Sustained, healthy growth in established companies and industries and continued development of new companies and new industries will mean greater ability to achieve these other national goals.

While this proposal would be modest in terms of its dollar cost to the Federal Government, I think it can result in a very significant and basic contribution to the economic strength of our Nation.

I strongly recommend that Congress give prompt consideration to this proposal, which is in accord with the President's program.

Sincerely yours,

LUTHER H. HODGES,
Secretary of Commerce.

COMPTROLLER GENERAL OF THE UNITED STATES,
Washington, D.C., March 15, 1965.

HON. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR MR. CHAIRMAN: By letter dated February 4, 1965, you requested our report on S. 949. The stated purpose of this measure is to promote economic growth by supporting State and regional centers to place the findings of science usefully in the hands of American enterprise.

While we have no special information that would assist the committee in its consideration of the merits of S. 949, we offer the following comments on certain aspects of the measure.

Inasmuch as the grants made to the institutions described in the bill would involve the expenditure of appropriated funds it is our understanding that these expenditures would be subject to audit and review by this Office with such reports to the Congress as may be deemed necessary under the provisions of the Budget and Accounting Act, 1921, 31 U.S.C. 53, and the Accounting and Auditing Act of 1950, 31 U.S.C. 67. We note, however, that the bill would not expressly grant the Secretary of Commerce or the Comptroller General the right to examine pertinent books, records, and documents of the institutions and agencies receiving Federal grants under the provisions of the bill. We believe that access to such records is necessary for the adequate administration and audit of a grant program, and we

therefore suggest that the bill be amended by including a section substantially as follows:

"Each recipient of a grant under this act shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and the disposition of such grant, the total cost of the related approved program, the amount and nature of the cost of the program supplied by other sources, and such other records as will facilitate an effective audit.

"The Secretary and the Comptroller General of the United States or any of their duly authorized representatives shall have access to any books, documents, papers, and records of the recipient that are pertinent to amounts paid under this act."

Section 5(g) of S. 949 would require that all reports prepared in the course of furnishing technical services supported under the bill be made public or be made available at cost to any person on request. It is not clear whether, for the purposes of the bill, the cost of the reports is intended to include only the costs of printing and distribution or the full cost of preparing the reports, including research, administrative, and other costs.

Section 11(c) provides that up to 5 percent of the total amount-appropriated each year shall be available for direct expenses of administration. We believe that funds for administrative expenses should be provided by the Congress each year in a specified amount on the basis of the proposed program for such fiscal year.

We have no further comments to make concerning S. 949.

Sincerely yours,

JOSEPH CAMPBELL,
Comptroller General of the United States.

EXECUTIVE OFFICE OF THE PRESIDENT,
OFFICE OF SCIENCE AND TECHNOLOGY,
Washington, March 24, 1965.

Hon. WARREN G. MAGNUSON,
*Chairman, Committee on Commerce,
U.S. Senate.*

DEAR SENATOR MAGNUSON: In reply to your letter of February 24, requesting comments on S. 949, a bill introduced by Senator Byrd and others to promote economic growth by supporting State and regional technological service centers, I would like to offer the following views.

This bill results from several years of study by agencies of the executive branch, supported by leading scientific and economic consultants from outside the Government, of the problems of stimulating and extending technological innovation in the civilian sector of the economy. It is a modest proposal—fully supported by this administration—that merits the support of the Congress.

To a limited degree, the bill is modeled after the agricultural extension programs that have successfully placed the fruits of agricultural research in the hands of the American farmer with enormous benefits to the Nation. But the measure will also break new ground as a partnership—between the Federal Government, the States, our universities, and industries—to make technological achievements more widely and more readily available to a broad range of industrial firms at a time when industrial products are becoming increasingly sophisticated, when international competition is stiffening, and when public demands for goods and services are constantly increasing.

By authorizing the establishment in every State of university-based centers capable of making available to industry a wide variety of useful technical services, the bill would contribute to two especially important and timely objectives:

First, both industry and the universities would benefit from the resulting interchange of ideas and information. There are throughout the country many enterprises that because of limited resources or physical isolation have failed to become aware or take advantage of the rich store of relevant information and technique that fresh scientific discoveries are constantly increasing, often under Federal sponsorship. On the other hand, our university educational programs could also, to a limited extent, benefit from increased involvement in and commitment to the economic development of their environment. New England and California typify regions of the country where such industry-university interdependence has significantly paced both economic and intellectual progress.

A second merit of the bill is that it would contribute to carrying forward this progress in every State of the Nation. Recent studies in both the executive and legislative branches indicate the desirability of sound programs to stimulate technological development throughout the country. In many States, this program would generate the first organized approach along such lines. Significantly, the program would rest on State-based initiative and cooperative funding, within the context of planning on both a long-range and annual basis. Furthermore, the provision of incentives in section 7 for regional and interstate cooperation is especially sound and responsive to the regional nature of many of our economic needs and opportunities.

S. 949, I believe, would constitute a solid first step in an attempt to stimulate new technology and new job opportunities. Should you desire a further expression of my views on this bill, I would be glad to provide it.

Sincerely,

DONALD F. HORNIG, *Director.*

CHANGES IN EXISTING LAW

There are no changes in existing law.

COSPONSORS ON S. 949

Senators: Magnuson, Scott, Byrd (West Virginia), Ribicoff, Pastore, Monroney, Lausche, Bartlett, Hartke, McGee, Hart, Cannon, Brewster, Neuberger, Bass, Cotton, Prouty, Pearson, Dominick, and McGovern.

